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Toward a National Standards Strategy

Conference Summary Report

**Walter G. Leight
Krista J. Johnsen Leuteritz**

**U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of Standards
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**U.S. DEPARTMENT OF COMMERCE
William M. Daley, Secretary**

**TECHNOLOGY ADMINISTRATION
Gary Bachula, Acting Under Secretary for Technology**

**NATIONAL INSTITUTE OF STANDARDS
AND TECHNOLOGY
Raymond G. Kammer, Director**

PREFACE

On September 23, 1998, the National Institute of Standards and Technology (NIST) and the American National Standards Institute (ANSI) co-hosted a summit conference, **Toward a National Standards Strategy To Meet Global Needs**. NIST Director *Ray Kammer* and ANSI President *Sergio Mazza* co-chaired a program that featured keynote addresses by Deputy Secretary of Commerce *Robert Mallet* and *Dana Mead*, Chairman and CEO of Tenneco and World Standards Day Chairman; a luncheon address by *Evangelos Vardakas*, Director, Directorate B, Legislation and Standardization, Telematics Networks, Directorate General (DG)-III: Industrial Affairs, European Commission; three panels comprised of standards experts from industry and government; and discussions of comments and questions raised by some of the 339 registered participants.

This digest of the material presented at the conference was prepared by members of the staff of the NIST Office of Standards Services based on notes taken during the presentations, material provided by speakers, and audio tapes. A more complete report, containing full texts and figures, will be published separately and made available to all participants and other interested parties. The editors of this compilation take full responsibility for any inadvertent errors in the interpretation of speakers' views.

Special thanks are due to Maureen Breitenberg, Patrick Cooke, Christine DeVaux, Carmiña Londoño, JoAnne Overman, Marilyn Stream, and Ellen Trager for their assistance in preparing this volume. The Office of Standards Services greatly appreciates the work of the very many members of the NIST and ANSI staffs whose tireless efforts made the conference possible.

ROUNDTABLE I

Identifying U.S. Needs for Domestic, Regional, and International Standardization

Panel Moderator *Sergio Mazza* emphasized that the summit marked the beginning of a process, not a conclusion, and that the ultimate goals are to facilitate trade, support the competitiveness of U.S. business, and safeguard our quality of life, safety, health, and the environment. He recognized the diversity of our vast economy and the differences among sectors that call for a portfolio of standards strategies and concluded that ANSI and NIST must work together to identify and resolve conflicts at both the standards and policy levels; and must seek to forge a united front in arguing for the public and economic value of standards, exercising leadership in setting global standards.

Thomas Castino, President and CEO of Underwriters Laboratories, Inc., outlined the need for an effective national strategy that incorporates key aspects of the U.S. safety system into the emerging global system. Such a strategy would provide industry with greater freedom to innovate, reduce barriers to product acceptance, and get new and improved products to market sooner via universally accepted methods of evaluation. Requirements that make products more expensive, more difficult to manufacture, to export, or to install/use are undesirable. U.S. safety and research organizations must, therefore, participate actively in developing and harmonizing standards in the International Electrotechnical Commission (IEC), the International Organization for Standardization (ISO), and other international fora.

Henry Line, Divisional Vice President, Global Product Standards, AMP Incorporated, noted that the globalization of business, the rapid implementation of new technology, and the economic and technological convergence of markets are interlocking market forces that are significantly changing the dynamics of global competition. Standards, especially global standards, are now the predominant enabling catalyst facilitating the growing impact of all three. Companies that don't participate in the standards-setting process allow competitors to make their new product decisions for them. However, since industry standards are sectoral in nature, a single strategy that addresses the needs of all sectors cannot be conceived. Central control of the planning process would destroy the vibrancy of the current system, which works effectively for most industries despite its shortcomings. Nonetheless, changes to the U.S. approach are needed and should embrace several basic strategic principles, namely:

1. Industry standards must be market-driven.
2. The U.S. system, with ANSI at the vanguard, should continue to be voluntary, consensus-based, with due process, and led by the private sector.
3. Continued close working partnership between the private sector and government agencies is needed.
4. Development of industry standards should be approached on a sectoral basis.
5. Electronic information transfer is a cornerstone for strategy.
6. Small companies, state agencies, and consumers must be brought into the process.
7. There must be support for supplier's declaration of conformance; single CASCO

symbol for product marking and labeling; mutual recognition and transparency on a global basis. 8. Re-engineer the process to achieve more timely and less costly development of standards with improved technical content.

9. Greater involvement of U.S. companies and their executives is needed. All stakeholders, including NIST, must be involved.

Charles Ludolph, Deputy Assistant Secretary for Europe, International Trade Administration, U.S. Department of Commerce, stated that the U.S. economy has changed substantially and the United States is now only a part of global markets. The status of standards around the world is a paradox, however, due to the fragmentation of standards in a global market. Unnecessary national standards and requirements have proliferated and reduce potential economies of scale and global competitiveness. Market access opportunities are reduced, as are consumer safety and consumer protection. We need a coordinated, coherent, and harmonized approach to meet the needs of producers and consumers, including actions regarding the uneven influence of European standards organizations in international standards bodies, possible reforms of international standards organizations, as well as a review of U.S. standards developers' parochial interests. The business community should continue, and even expand, support for ANSI's initiative to develop national positions for the work in ISO and IEC, and should consider the competitive aspect of the standards positions that they promote. We have failed to move toward a metric system, with resultant disadvantages. Standards development organizations should reexamine the rationale for differences with other countries, especially regarding material and electrical standards.

R. David Pittle, Vice President and Technical Director, Consumers Union, and former Commissioner of the Consumer Product Safety Commission, argued that consumer participation in standards activities should be an integral part of a global strategy and should be funded to ensure consistency and credibility. He presented a "Top Ten" list of reasons to support this:

1. The National Technology Transfer and Advancement Act of 1996 requires Federal agency use of voluntary standards whenever possible, diminishing the role of government in protecting consumers. Without strong consumer participation, the value and credibility of standards will be weakened and will lessen the likelihood of adoption.

2. European countries fund consumer participation.

3. The ISO Consumer Policy Committee (COPOLCO) has proposed strong wording to encourage consumer participation, fund expenses, and even isolate national bodies that do not.

4. The European Association for the Coordination of Consumer Representation in Standardization (ANEC) has called for higher priority and more resources for consumer participation.

5. Consumer participation assures balance and fairness, a politically acceptable principle.

6. Since consumers are directly affected by the outcome, they have an inherent right to participate in the process.

7. Consumers can participate competently when issues are complex. They know the performance level they want, and can retain independent technical experts if funding has been provided.

8. There has been successful consumer participation in the Codex Alimentarius and its subsidiary bodies for several years.

9. Participation increases credibility at the national level and enhances chances for international acceptance of resulting standards.

10. Consumer participants do not want to be treated as second-class participants. An ANSI survey of 181 standards development organizations reveals that few SDOs offer any meaningful financial assistance to participating consumers, hence too few consumers participate.

Keith Termaat, Cross-Platform Closure Systems Manager, Ford Motor Company, stated that technology is ending the significance of geography through the rapid globalization of standards. The standards process is political and requires a partnership between government and the private sector in order to define national interests and present them to the rest of the world. Many factors, such as the increasing influence of CEN and CENELEC, the adoption of ISO/IEC standards by many nations, and the development of non-traditional (consortia) standards, all affect the external realities faced by the United States. Termaat proposed a "big tent approach" that includes everyone in the standards development process and creation of a cohesive national standards strategy. He cited three main priorities:

1. Reposition the United States relative to global standards players (so that ASTM, ASME, and other standards developers would be considered equivalent to DIN, AFNOR, and other foreign national bodies);

2. Create a U.S. standards issues agenda by consensus; and

3. Secure financing for a strong ANSI. He also proposed that the United States negotiate for CEN/CENELEC to represent the European Union, accompanied by withdrawal of the European national bodies (e.g., DIN, AFNOR, BSI).

James Thomas, President, ASTM, believes that the standards community can change to address global activities and that ANSI needs to lead a strong U.S. technical consensus process. He is concerned about the disadvantages that the United States faces in the international arena, including the increased number of EU members and their representation vis-à-vis the United States and the trend toward adoption of European standards. He emphasized the misconception that only ISO and IEC standards are international standards. Many U.S. standards bodies are open to all interested parties, both domestic and foreign, and many U.S. standards are used globally. The common desire is for one standard that everyone uses, and buyers and sellers should be able to determine which standards are to be used. A market-based system must be emphasized in the international arena. ASTM has established its goals for improving the quality of life, but cannot achieve them alone.

OPENING KEYNOTE ADDRESS
by Hon. Robert Mallet, Deputy Secretary of Commerce

The Deputy Secretary thanked NIST and ANSI for the opportunity to participate in the Summit and the chance to bring trade and standards policy issues to the agenda. He noted that these subjects rarely get the media attention that they deserve.

Mr. Mallet stressed that the time for action is now. Although discussion is good, developing a national strategy is even more important: "If all you do today is talk, you will have failed." The challenge for the audience is to develop an action agenda that recognizes the importance of standards in opening and closing markets. The U.S. standardization system is unique; in fact our consensus process is the envy of all. However, our resources are spread too thin, making it difficult to compete with more monolithic systems. Furthermore, many other national governments help more than we do. The government should participate as a stakeholder, not as a driver. Our approach is technically focused. In contrast, some governments have politically driven approaches.

Mallet noted that the present U.S. approach in international standards activities is too *ad hoc*. Unless we act, U.S. technology will not be embedded in future international standards. He highlighted the European investment in Latin America, where the Germans have invested more than \$40 million dollars to build a Latin American standards infrastructure along the lines of German technology. We are now confronted by the fact that the Europeans have adopted an effective standards strategy.

Mallet emphasized the goal of getting U.S.-built products tested to U.S. standards with the results accepted everywhere. Industry leaders should have more than a passing interest in the standards world, and the U.S. Government must work with ANSI to develop a national strategy that produces standards that are truly global and timely. Standards must respond effectively to both technical and market needs, and perhaps be freely available through the Internet. We might even want to pay people to use our standards to increase our market share.

In conclusion, Mallet said that DOC intends to be a catalyst to end this costly inertia and confusion. We will streamline procedures in laboratory accreditation and eliminate duplicate efforts. We must join with ANSI to strengthen our international position through coordinated viewpoints, and also improve technical assistance programs. Although the United States is the most prolific exporter in the world, we are not paying enough attention to the homelier issues of standards, laboratory accreditation, and the like. The devil is truly in the details, and unless we pay attention to them, U.S. products will be locked out of other markets. Through ANSI and with the government's help, we must all embrace this challenge with gusto.

ROUNDTABLE II

Getting the Best of U.S. Technology into Standards

Panel Moderator *Ray Kammer* said that the \$8 trillion U.S. economy, the largest and most vibrant in the world, is fueled by constant technological innovation that gets incorporated into new products, many destined for export markets. To be competitive, manufacturers must make world-class products for sale in the United States and outside our borders. To be successful we need one standard governing a product. Global products require one governing set of international standards, and these standards must include elements of U.S. technology for our businesses to succeed. Many manufacturers have said that while they do not particularly seek an advantage in the writing of standards, they simply do not want to be disadvantaged: they want to compete on a level playing field.

George Arnold, Standards and Intellectual Property Director, Lucent Technologies, indicated that telecommunications equipment and services create more than \$620 billion/year in revenues, \$320 billion/year domestically. However, telecommunications standards are affected by changes in the telecommunications and information technology business environment, such as trends toward convergence, deregulation and mergers. Even with attempts to decrease technical barriers to trade, new policies can effectively increase those barriers. To ensure the best global telecommunications standards reflecting the contributions of U.S. technology, U.S. stakeholders need to: 1. Participate actively in pertinent standards organizations. 2. Learn from counterparts and share best practices around the world; the European Telecommunications Standards Institute (ETSI), for example, accelerates the development of global standards by encouraging other countries to participate in relevant telecommunications standards activities. ETSI has standards partnerships with other countries to develop 3G wireless specifications. ANSI has adopted a similar approach. 3. Facilitate freely-available electronic access to U.S. standards information. Telecommunications equipment sales are reinforced by the wide dissemination of telecommunications standards. While it is understood that ANSI and SDOs must derive revenues to operate, alternative funding models are needed that do not rely on the sale of standards documents.

Helen Delaney, former Standards Attaché and First Secretary, U.S. Mission to the European Union, recognized the many factors which the United States and the European Union have in common: we are both market-driven democracies and state federations; our laws have such common objectives as the protection of health and the environment; and we rely primarily on voluntary consensus standards development. However, technical barriers to trade between the two largest trading partners in the world have arisen in some sectors because:

1. The European standards system is closed. Although European companies have access to the U.S. standards development process, whether or not they have U.S. subsidiaries, U.S. manufacturers must be physically located in the EU or demonstrate that they provide European jobs or income prior to participating in the EU's standards development process. This effectively excludes many U.S. companies.

2. Those manufacturers using European standards can, in most cases, mark their products with the CE Mark and directly enter the European market. However, because foreign manufacturers cannot declare conformance to alternative standards without consequences, and because European law confers upon European Harmonized Standards the presumption of conformity, the European system is not truly voluntary. The United States and EU should jointly examine whether the sole use of EU standards can guarantee a specified level of safety. One alternative to the current approach would be to recognize the equivalence of standards. U.S. manufacturers could then satisfy EU essential requirements through conformance to U.S. voluntary consensus standards.

Richard Feigel, Vice President, Hartford Steam Boiler Inspection and Insurance Company and Senior Vice President, American Society of Mechanical Engineers, stated that any U.S. standards strategy should be a business-driven, sectoral approach that is evenly balanced between trade issues and technical excellence. It must be a cooperative effort among stakeholders, namely industry, government, and SDOs. U.S. industry should:

1. Incorporate standards management into strategic business planning.
2. Adopt a sectoral approach to standards development.
3. Ensure that standards reflect actual business practices. One area that should be improved is the deficiency within the European Committee for Standardization (CEN) and the International Organization for Standardization (ISO) of the definition of manufacturer's responsibility. This often results in arbitrary divisions between responsible parties. At the same time, the U.S. Government should:

1. Encourage the use of U.S.-based standards by educating others about U.S. technology.
2. Reduce tension between federal regulators and state and local level agencies.

U.S. Standards Developers should:

1. Ensure that their processes are open, transparent, and provide for due process.
2. Promote international participation in standards development activities and ensure that it is carried out on an equal basis.
3. Streamline administrative procedures to reduce time to market.
4. Be aware of and embrace new technologies, such as web-based systems.
5. Ensure that all interested stakeholders are consulted and informed.
6. Use cost-benefit criteria when revising an existing standard or creating a new standard.

Ronald Reimer, Corporate Manager, Industry Standards and Product Relations, Rockwell Automation, Allen-Bradley Company; Chairman, U.S. National Committee to the International Electrotechnical Commission, stated that the ability of U.S. technology to penetrate markets is affected when countries form regional trading blocks. If a given standard later becomes regulation, trading is constrained by that standard's technology. This should be prevented by adopting only one international electrotechnical standard and one test that can be performed once and will be accepted everywhere, with only one certification mark. The United States will need to act to ensure that the best U.S. technology is incorporated into IEC standards. The IEC should:

1. Use available *de facto* and *de jure* standards until the IEC becomes the predominant global SDO.

2. Modify its administrative procedures and the languages it allows to be used.

3. Ensure that voting rights are not linked to dues categories, enabling all countries to vote, not just those countries that can afford it.

4. Continue its re-engineering process.

ANSI should:

1. Influence its counterparts in other countries to vote and participate in the IEC.

2. Ensure that it is recognized as the U.S. standards umbrella organization.

The U.S. government should:

1. Be more active in ensuring U.S. presence in the IEC.

2. Formally recognize ANSI as the U.S. standards umbrella organization.

3. Recognize the U.S. National Committee (USNC) as the official interface with the IEC and, accordingly, pay IEC dues and fund the USNC secretarial staff.

Gerald Ritterbusch, Director, Standards and Regulations, Caterpillar, Inc., described the construction machinery industry's activities in international standards development to ensure that the best U.S. technology gets into global standards. Capitalizing on expertise, organizational skills, and the efforts an industry or group is willing to make, the U.S. members of the relevant Technical Advisory Group have recognized that before taking on a new work item, the necessary resources must be in place to complete the work and all interested parties must have a chance to participate. The goal of achieving global standards that incorporate U.S. technology is realistic. Other countries may take the lead in some areas where they are more technologically advanced or better organized. The United States will take the lead where we are technologically strong. U.S. standards must be closely aligned with international standards to achieve the maximum benefit for trade and commerce, having tried to ensure that the best of U.S. technology has in effect been incorporated into those international standards. All interested parties should share their best practices with their international counterparts.

Michael Schagrin, Standards Program Manager, Intelligent Transportation Systems Joint Program Office, U.S. Department of Transportation (DoT), described the Intelligent Transportation Systems (ITS) and how transportation programs work to keep pace with the growing population. The many components of the ITS include telecommunication and computer devices to monitor traffic conditions, weather, construction, accidents, etc. The ITS also covers parking and emergency management and vehicle registration. Subsystems, such as traffic signals, tollbooths, and roadside cameras, are also being developed. Various U.S.-based standards- developing organizations are now drafting between 70 and 100 standards to cover these activities, with DoT supplying funding. The Department is working on North American standards through ISO Technical Committees 22, Road vehicles, 211, Geographic information/Geomatics, and 202, Microbeam analysis. European support and funding for this effort was briefly discussed.

Robert Wurzel, Vice President, Regulatory and Quality Affairs, Becton Dickinson and Co., spoke of the need for standards to reflect the best global technology in the medical device industry, a pervasively regulated industry focused on the safety and efficacy of products, which is of primary concern to users and to patients. Approximately 5,000 different types of medical devices encompass a spectrum of technologies from microelectronics to microbiology. A major factor impacting standards development for medical devices is the broad spectrum of products and technologies and the diversity of the user population. Since the Food and Drug Administration (FDA) is the regulatory agency for medical devices, it is important to work with the FDA to ensure availability of scientific expertise related to the ever-changing technology. Participating in standards development with the FDA is key to “fast-track” regulatory approval for marketing new products and, it is hoped, will also facilitate rapid global approval. European Directives on medical devices and their partial reliance on standards are also significant factors in the growing importance and value of standards in the regulatory process, a process watched carefully by nations around the world. Since the FDA continues to have important influence worldwide, industry needs to partner with the FDA to develop an effective and flexible standards process.

LUNCHEON GUEST SPEAKER

Evangelos Vardakas, Director, Directorate B, Legislation and Standardization, Telematics Networks, Directorate General (DG)-III: Industrial Affairs, European Commission

Mr. Vardakas noted that the European Union and the United States differ in their approach to standardization. As regulators, European authorities widely use standards to support technical rules and to support their policy objectives. Because Europe has had a tradition of strong national standards bodies with divergent standards, the EU has used standards as a tool to unify the European market.

In this approach, the European Commission has entrusted industry and other interested parties with the task of drawing up standards to give presumption of conformity with legislation. The standards bodies have taken the lead in providing technical solutions to regulatory requirements. Through a combination of both regulation and deregulation, Europe has politically and financially supported the development of its standardization system. Over time, the EU has drawn back from its prominent funding position as the system fell into place. The current level of official support is now estimated to be less than 1.5 percent of the total resources invested in European standardization; this may usefully be compared with the size of the European public sector, which comprises 10 percent of the European economy. The remainder of the cost of European standardization is borne by industry and other parties.

Contrary to common U.S. perception, only a minority of European standards are linked to legislation. Under some laws, standards provide a privileged route for demonstrating compliance with legal requirements while themselves remaining voluntary. In public procurement, they form a mandatory basis for public tender documents where they exist. National standards bodies in Europe now have a mutual obligation to accept European standards and to withdraw conflicting national standards. European unification on a common standard is not a means for keeping foreign competition out, but merely to create unified commerce within the Community. Importers face only one set of technical specifications and one set of marking requirements for access to the whole European market. The common regulatory regime makes it very attractive for countries interested in exporting to the EU to consider aligning their own standards to the European ones.

The European Community's approach -- and that of most of the rest of the world -- is one of consensus-building on a single standard recognized at European (or analogous) level. The American standards system appears to be based on acceptance of competing standards with no general consensus on a single standard. The EU does not have a mechanism to promote or impose their standards on the rest of the world. Instead, Vardakas challenged the United States to work with the Europeans to address differences.

ROUNDTABLE III

Funding the Process

Panel Moderator *Robert Hermann*, Senior Partner, Connecticut Technology Associates and Chairman of the ANSI Board, pointed out that standards are increasingly important to the global economy and to the United States' economy, competitive position, and quality of life. The United States benefits by playing an increasing role in standards development at all levels. The U.S. role is not now adequate to meet our objectives, which will only be possible through a joint government/private sector cooperative effort. A U.S. strategy in this area is needed, and we need at the same time to identify the sources for the funds that are needed to implement that strategy.

Reuben Autery, President of the Gas Appliance Manufacturer's Association, Vice Chairman of the ANSI Board, and Chairman of the ANSI Finance Committee, spoke to the financial difficulties faced by ANSI and emphasized that no one can pay bills with promises. ANSI members must decide what ANSI should accomplish, then ANSI should bill members accordingly to meet stated goals. ANSI members still lack a clear vision of what ANSI's role should be in the global standards process.

Arthur Cote, Senior Vice President and Chief Engineer, Operations, National Fire Protection Association, referred to an 80-to-20 rule of standards development, which basically states that profits from the sale of 20 percent of the standards produced provides 80 percent of the funds available for all standards development. The ratio may even be closer to 95-to-5 since not all standards activity is profitable. NFPA derives its income primarily from the sale of its codes and standards, then has to fund all administrative costs associated with standards development. NFPA is self-funded, and its stakeholders don't want their time wasted, but they want NFPA to develop standards efficiently. Cote pointed out that the National Standards Strategy must recognize the effectiveness of the present U.S. standards system and not sacrifice any of our U.S. standards development organizations in the process of developing and implementing the strategy.

Herbert Kaufman, Director of Standards Development and Research Group, Society of Automotive Engineers (SAE), stated that standards must be considered as a long term investment and must be of value to the customer. They must contain the right (global) requirements, be produced/available at the right time and at the right price -- a price based on the system's cost, not on the cost of the documents. SAE's standards development costs are borne mostly by large companies. Government support is usually short-term and sporadic, and funds from the sale of publications are shrinking. Companies bear the brunt of funding the process. Since the largest companies benefit most, they should pay the largest percentage of the cost. Government funding should cover the benefits obtained by smaller companies and other public sector groups. Some questions still remain to be resolved with respect to the right balance between company and government support. Support should be proportional to the amount of influence that a party has on the system. SAE supports the concept of NIST's funding for international standards work.

Malcolm O'Hagan, President, National Electrical Manufacturers Association (NEMA), noted that NEMA has started to implement a global strategy regarding standards development. Globalization

and technological developments are driving changes in standards development. The private sector and government must work together in this area. He recommended that ANSI should move to Washington, D.C.; that the work of NIST Standards Attachés in U.S. embassies should be broadened, as should the work of the U.S. Foreign Commercial Service officers; the U.S. Government should help to pay ISO/IEC dues; the U. S. Trade Representative, ANSI, and DOC should promote U.S. standards and practices internationally, especially in key markets; and sectoral standards strategies, which are likely to be the most effective, should be developed.

Oliver Smoot, Executive Vice President, Information Technology Industry Council (ITI) and Vice Chairman of the ANSI Board, reported that the IT sector has transformed itself and relies on global standards rather than developing national standards. The standards consortia method for standards development is heavily used in the IT sector. ITI believes that standards development activities should be based on market relevance, with the involved sector paying the costs associated with standards development for its sector; and that the decisions regarding the sale of standards should be left to the sector. A one-size-fits-all view across industry lines hinders the United States at the international level. Fundamental copyright law concepts need to be applied to standards publishing, and issues of sharing infrastructure costs must be resolved. The international system should be sector-specific in terms of paying for standards development, with infrastructure costs paid by national bodies. Government should support information dissemination, trade promotion, increased efforts of standards attaches, etc. ANSI's dues schedules should be consolidated into one schedule. Long-term commitment is necessary if there is any government funding: short-term, administration-dependent funding will injure the standards system.

Raymond Kammer, Director, NIST, declared that ANSI and NIST are committed to helping U.S. companies achieve better access to the international standards system. National interest in the outcome of international standards development by itself justifies some government funding of the process. Government funding may help to facilitate access to international standards development. DOC has given strong support to the idea of such funding, and NIST and DOC are currently talking to the Office of Management and Budget; its support appears likely. The next step will be to appeal to Congress via the budget process. The House Science Committee has legislated on standards-related issues three times in the last few years, so they are obviously aware of the importance of the issue. New legislation may help to institutionalize government funding for standards development. The dollar amount that we are proposing is around \$4 million, which would be provided to ANSI in the form of a grant. Grants are easier to manage, result in less red tape, and appear to be the most appropriate way to provide funding.

CLOSING KEYNOTE ADDRESS

by Dana Mead, Chairman and CEO, Tenneco, and World Standards Day Chairman

Mr. Mead called for action by all U.S. stakeholders to create a national standards strategy aiming for the goal of one standard, one test, and worldwide acceptance of a supplier's declaration of conformity to that standard.

Mead noted that some governments may not choose to recognize U.S. standards even if similar to their own. Among many products, Tenneco makes catalytic converters for the Ford Escort, and even within the United States, vehicle emission requirements vary widely. Specifications are exacting, but are often interpreted or applied differently. The cost of complying with different specifications among many countries often equals the cost of an entirely new product. Why should standards vary from country to country? Harmonizing national and international standards will increase trade and productivity without decreasing the quality or value of the end-product.

By coordinating a U.S. national standards strategy, we will build the superstructure to facilitate standards and trade worldwide. As the global system shakes out, people will look for more strategic partners, and the challenges of divergent standards will be even more difficult. The EU is the world's single largest importer/exporter. The United States and the European Union together comprise 55 percent of the world's economy. Our best defense is a united front. Our national standards strategy must have this as an objective: one standard, one test, and the supplier's declaration of conformity accepted worldwide with market surveillance.

CONFERENCE SUMMARY AND REMARKS

by Sergio Mazza, ANSI, and Ray Kammer, Director, NIST

Mr. *Mazza* stated that whether we like it or not, the market is becoming global. Companies that ignore this fact do so at their own peril. We must therefore make thoughtful choices about harmonizing our standards. We need a process in place to develop a national standards strategy that will define our options and potential actions, protecting the gains that the United States has already made in public health, safety and the environment. Our safety standards differ from those of other nations, yet in many respects these standards are comparable, so we must find ways to harmonize and establish equivalency, perhaps with a transition phase.

Mazza stressed that the clearest message that came across today was that standardization is not the same in all sectors. Whatever our standards strategy, we will have to allow for diverse approaches in different sectors. Accommodating diversity requires assessing how and to what extent consumer interests are included in the process. As for structure, we will look at the way that ISO and IEC work. We are interested in helping these organizations work better, not just for us, but for the new global market. This will entail addressing financial issues related to ISO and IEC.

We also need to consider improvements in government and private sector cooperation and communication, not only in the United States, but around the world. People from a foreign national standards body sometimes say one thing, then we learn from the U.S. Trade Representative that the government representative from that country said something quite different at a WTO meeting. It is not enough to talk to each other more effectively; we have to help the rest of the world understand that we all need to cooperate.

Mazza concluded that, on the issue of funding, it can't be said loudly enough: There is no such thing as a free lunch. We need to ensure that those who benefit from standardization pay for it. Clearly, each sector has to find its own way, its own approach to fund its activity, but everybody must pay. This includes some of the shared costs, meaning the infrastructures of ANSI, ISO, and IEC. As we look at the structural issues, we really must resolve the financial ones as well. Thank you.

Mr. *Kammer* reported hearing a number of things during the day in the realm of the possible, probably worthy of further attention and, perhaps, ultimately an element of the strategy. In particular, there was the repeated thought that we should reach out to other countries facing similar circumstances regarding their relationships with ISO, IEC, and ITU. Another repeated thought was the need to relieve the financial pressure on ANSI so that we might improve our international representation.

Kammer believes that the notion of re-engineering – of joining into a dialogue with ISO, IEC, and ITU to see what might be achieved – is very powerful. Issues to be discussed with those bodies might include intellectual property; revenue; the unique preference for CEN/CENELEC standards currently shown by ISO and IEC; the issue of presumption of conformity; and the voting structure itself. We need to hear further about these topics from other people.

Kammer concluded by noting that conformity assessment is another important issue that remains to be treated, perhaps in a manner similar to the way standardization was discussed at this session.

